

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Appellant(s): Yoakim et al.  
Appl. No.: 10/728,342  
Conf. No.: 8608  
Filed: December 3, 2003  
Title: SEALED FLEXIBLE CARTRIDGE  
Art Unit: 1761  
Examiner: A. Corbin  
Docket No.: 112701-573

Commissioner for Patents  
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**APPELLANTS' REPLY BRIEF**

Sir:

**I. INTRODUCTION**

Appellants submit Appellants' Reply Brief in response to the Examiner's Answer dated January 4, 2007 pursuant to 37 C.F.R. § 41.41(a). Appellants respectfully submit the Examiner's Answer has failed to remedy the deficiencies with respect to the Final Office Action dated April 18, 2006 as noted in Appellants' Appeal Brief filed on October 13, 2006 for at least the reasons set forth below. Accordingly, Appellants respectfully request that the rejections of pending Claims 1-2, 4-5, 10-12, 14-16 and 19-20 be reversed.

**II. FOND AND FAVRE FAIL TO DISCLOSE OR SUGGEST EVERY ELEMENT OF  
THE CLAIMED INVENTION**

Appellants respectfully request that the Board reverse the section 103 rejections because the Examiner has still failed to show that *Fond* and *Favre* disclose or suggest every element of the present claims. Independent Claim 1 recites, in part, a sealed cartridge comprising a second sheet material that is selected from the group consisting of filter paper, non-woven fiber material, prescored plastic material and combinations thereof having a sufficiently tight mesh to retain water or beverage in the cartridge until the overpressure is reached and allows the beverage to pass through it by effect of the fluid overpressure alone when the overpressure of between 0.1 to 3 bar is reached, thus resulting in a delay effect in the passage of the beverage through the second sheet after water has been admitted into the capsule. In contrast, Appellants respectfully submit that *Fond* and *Favre* fail to disclose or suggest every element of independent Claim 1.

For example, *Fond* fails to disclose or suggest a cartridge with a second sheet made of filter, non-woven fiber or prescored plastic material that allows the beverage to pass through it by effect of the fluid overpressure alone when the overpressure of between 0.1 to 3 bar is reached as required, in part, by Claim 1. In addition, *Fond* fails to disclose or suggest that the second sheet is a filter, non-woven fiber and/or a prescored plastic material as required, in part, by Claim 1.

The Examiner asserts that many embodiments disclosed in *Fond* do not require that the relief surface elements puncture or tear the tear face. See, Examiner's Answer, page 6, lines 7-8. Appellants respectfully disagree and submit that all of the embodiments taught by *Fond* require that the tear face be punctured by the relief element (e.g. impinging member) in order to allow the beverage to pass through the cartridge. For example, *Fond* teaches that:

In the present invention, the relief surface element may have various configurations and arrangements of members, and those members may have various shapes, as noted above and as further discussed below and also illustrated in the drawing Figures. The relief surface element may have members which may project away from a basic planar surface of the element and which may or may not enable directly cutting or perforating the tear face, and in accordance with the invention, the tearing action on the tear face of the cartridge is made only possible because the relief surface element enables the tear face to reach its breaking stress during deformation under pressure. In any event, the relief surface element is configured and arranged to provide zones for substantially homogeneous distribution of and flow of the fluid comestible prepared, and hence, particularly in the case when substances are extracted, to enable efficient extraction of the substance and obtaining a quality uniform extract which is reproducible.

See, *Fond*, column 8, lines 27-45 (emphasis added.)

Moreover, contrary to the Examiner's assertion, all of the detailed descriptions of the main embodiments in *Fond* teach how the material of the tear face must be impinged upon by the relief surface elements in various configurations to reach its breaking stress. See, e.g., *Fond*, column 5, lines 37-47; column 7, lines 10-25; column 8, lines 27-45; column 8, lines 46-64; column 8, line 65 to column 9, line 3; column 9, lines 4-16; column 9, lines 17-30; column 10, lines 7-65.

All of the citations referred to by the Examiner allegedly stating that relief surface elements are not required to puncture or tear the tear face actually refer to optional, additional or complementary members that can be used to promote the flow of the extracted fluid once the tear face is torn by the impinging relief surface elements. Thus, these additional flow control members are used in conjunction with the impinging relief surface elements and not in place of the impinging relief surface members. Nevertheless, the entire disclosure of *Fond* is directed to a sealed cartridge having tear face that requires at least one or more impinging relief surface elements to be broken and does not break upon the fluid overpressure alone, which teaches away from the claimed invention. As a result, the cartridge of *Fond* does not function in the same way as the claimed invention.

The Examiner asserts that the multi-layer cover or tear face of *Fond* can consist of paper alone. See, Examiner's Answer, page 6, lines 16-18. Appellants respectfully disagree and submit that *Fond* teaches that paper can comprise one of the components of the multi-layer cover and not the entire multi-layer cover. In fact, *Fond* repeatedly teaches that the materials employed for the tear face should have a character of foil, preferably aluminum. See, *Fond*, column 5, lines 49-51.

Finally, the Examiner asserts that *Fond* discloses that his materials can withstand a pressure above 1 bar thereby suggesting that at a pressure as low as 2 bars rupture may occur. See, Examiner's Answer, page 6, line 21 to page 7, line 2. The Examiner further asserts that *Fond*'s disclosure of a pressure range of 2-15 bars is merely a preferred limitation. Appellants respectfully submit that the Examiner is mischaracterizing the cited passage in *Fond* regarding when the tear face ruptures because *Fond* is not referring to the tear face rupturing based on the fluid overpressure alone. For example, in the relevant passage, *Fond* teaches that the tear face

when impinged upon the relief surface element is embodied to withstand a pressure in the interior of the cartridge above 1 bar. In other words, even when contacting the impinging relief surface element, the tear face is strong enough to withstand rupture of above 1 bar, which means that the tear face is probably likely to withstand an internal overpressure of substantially above 1 bar when there is no impinging relief surface element to initiate the rupture of the tear face.

Moreover, *Fond* teaches a cartridge having a tear face that can withstand pressures up to 15 bar despite contacting an impinging element. In fact, only when the pressure reaches a value of between 2 to 15 bars does the tear face press against the impinging elements. In addition, *Fond* teaches that the contact with the impinging element in conjunction with the high internal pressure of the cartridge finally causes the tear face to reach its breaking stress and form a plurality of openings. See, *Fond*, Claim 1 and column 7, lines 10-25. Consequently, *Fond* fails to disclose or suggest that its tear face breaks by effect of the fluid pressure alone when the overpressure of between 0.1 to 3 bar is reached.

*Favre* also fails to disclose or suggest a cartridge with a second sheet made of filter, non-woven fiber or prescored plastic material that allows the beverage to pass through it by effect of the fluid overpressure alone when the overpressure of between 0.1 to 3 bar is reached as required, in part, by Claim 1. In addition, *Favre* fails to disclose or suggest that the second sheet is a filter, non-woven fiber and/or a prescored plastic material as required, in part, by Claim 1.

*Favre* teaches a capsule having a barrier membrane made of aluminum, preferably between 30 and 60  $\mu\text{m}$  thick. See, *Favre*, column 1, lines 58-60. *Favre* also teaches that barrier membrane can withstand pressures of up to 16 bars before breaking, which clearly teaches away from the present claims. See, *Favre*, column 2, lines 20-23. Moreover, *Favre* clearly addresses a capsule with a stamped out groove forming a line of weakness. Therefore, the capsule of *Favre* is closed. This cannot be compared to a "prescored plastic material" as claimed where, for example, the second sheet can be permeable to gas but comprises a sufficiently tight mesh so that a beverage can pass through once the fluid reaches an over pressure between 0.1 to 3 bar.

Appellants respectfully submit that only by using an improper hindsight recreation is the Examiner able to even attempt to piece together the rejections of the claims. Moreover, even if combinable, the cited references fail to disclose or suggest every element of the present claims. Accordingly, Appellants respectfully submit that the obviousness rejections of Claims 1-2, 4-5, 10-12, 14-16 and 19-20 are improper and should be reversed.

### **III. CONCLUSION**

For the foregoing reasons, Appellants respectfully submit that the Examiner's Answer does not remedy the deficiencies noted in Appellants' Appeal Brief with respect to the Final Office Action. Therefore, Appellants respectfully request that the Board of Appeals reverse the obviousness rejections with respect to Claims 1-2, 4-5, 10-12, 14-16 and 19-20.

No fee is due in connection with this Reply Brief. The Director is authorized to charge any fees which may be required, or to credit any overpayment to Deposit Account No. 02-1818. If such a withdrawal is made, please indicate the Attorney Docket No. 112701-573 on the account statement.

Respectfully submitted,

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